6-1991

Nocturnal Roosting by Interior Least Terns Early in the Nesting Season

Erika C. Wilson
U.S. Fish and Wildlife Service

Wayne A. Hubert
U.S. Fish and Wildlife Service

Stanley H. Anderson
U.S. Fish and Wildlife Service

NOCTURNAL ROOSTING BY INTERIOR LEAST TERNS EARLY IN THE NESTING SEASON

Atwood (1986) described nocturnal communal roosting by the California Least Tern (*Sterna antillarum browni*). Such behavior has not been described in other Least Tern subspecies (Whitman, 1988).

Nocturnal roosting by Interior Least Terns (*Sterna antillarum athalassos*) was observed on each of three evenings between 23 and 31 May 1989 and once on 15 May 1990 when we observed a known nesting location. Least Terns congregated immediately before sunset and started flying in pairs or small groups with much vocalization. Occasionally all birds joined into one compact flock exhibiting synchronized flight as observed by Atwood (1986). With fading light, the birds joined in synchronized flight and made one to three low sweeps over the roosting area with individuals dropping out to land on each sweep. Least Terns were spaced from 0.3 to 1.0 m apart in the roosting area within loose groups. Upon landing birds began preening with continued vocalization. Approximately 1 to 2 minutes after the last bird landed, vocalizations and preening ceased. Silence and inactivity continued past dark. Examination of the roost in daylight revealed evenly spaced scrapes in the substrate. Least Terns were also observed roosting in depressions made by tire tracks within the roosting area.

Our observations of night roosting were at a group of inactive sand and gravel pits near Elm Creek, Buffalo County, Nebraska ($NE^1/_4$, $N^1/_2$, sec. 16, R1SW, T8N). The roosting area was located in a depression 42 m by 70 m, with the outer rim ranging from 0.25 to 1.5 m above the depression floor. The floor was relatively level and had a predominantly gravel substrate. The roost site may have afforded some degree of wind protection. Nesting occurred at other sites within the sand pit complex, but not within the area used for nocturnal roosting. Nests were located on sandy substrates, 115-460 m from the roosting location.

The number of Least Terns observed roosting exceeded the number of nesting birds that we observed in both the sand pit complex and on a nearby reach of the Platte River 1.5 km to the north. On 25 May 1989, we observed 52 Least Terns, including three in sub-adult plumage. Twelve nests were later seen within the sand pit complex; additionally, we found one nest on the river. These 13 nests accounted for only 26 birds. Because communal nocturnal roosting took place early in the nesting season, adult Least Terns not accounted for during nesting in the Elm Creek vicinity may have nested in other colonies or have been non-breeding birds.

Nocturnal roosting away from nesting areas before egg laying may reduce predation within colonies during nesting (Atwood, 1986).

Piping Plovers (*Charadrius melodus*) were also observed roosting with Least Terns in 1989 and 1990. The greatest number of Piping Plovers was observed on 31 May 1989 when six were dispersed among 30 roosting Least Terns. This was probably a significant proportion of Piping Plovers in the area, because only four Piping Plover nests were located within the sand pit complex, and none were located on the nearby reach of the Platte River. Piping Plovers and Least Terns require similar nesting habitat and frequently nest within the same colony. Use of the same night roost by both species further indicates similar habitat requirements.

References

Atwood, J.L. (1986). Delayed nocturnal occupation of breeding colonies by least terns (*Sterna antillarum*). *Auk, 103,* 242-244.

Whitman, P.L. (1988). *Biology and conservation of the endangered interior least tern: A literature review.* (U.S. Fish and Wildl. Serv. Biol. Rep. 88(3)). Washington, DC: U.S. Government Printing Office.

---Erika C . Wilson, Wayne A. Hubert, and Stanley H. Anderson, U.S. Fish and Wildlife Service, Wyoming Cooperative Fish and Wildlife Research Unit, Box 3166, University Station, Laramie, Wyoming 82071.